BLINDNESS IN OLD AGE

J. Jameson Evans

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Retinitis pigmentosa, amounting to over 6 per cent. of the cases, is a disconcerting item. Those of us who act as ophthalmic surgeons to blind institutions may have been under the fond impression that most of these cases were institutional, and that their marriages were thereby restrained. On reflection, however, it must be obvious to us that many contract marriage in ignorance of their ocular trouble. Night blindness is frequently insignificant during adolescence, or if noticeable it is tolerated with marked patience or indifference. There are others who refuse to be advised on a matter that they regard as purely personal, and have no wish to count the cost to their progeny or the State.

Choroido-retinal Atrophy.—I have had no means of establishing the causative agent in these cases. Probably the majority were syphilitic. A few also showed nystagmus and suggested infantile disease.

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Myopia (20 cases) was recorded as a cause of blindness, chiefly owing to choroido-retinal degeneration and secondary cataract. Few of these are noted as "high," but none

on such a small number of cases, but I hope it may stimulate others to record the results of more extended and exact observations as further material becomes available. I also hope that it may have the effect of drawing the attention of members of the profession, as well as that of public authorities, to some unsatisfactory features in the certification of the blind, and to the desirability of some agreement among the certifying surgeons with regard to procedure in the issuing of certificates.

PAIN AS A GUIDING SYMPTOM IN THE INJECTION TREATMENT OF VARICOSE VEINS.

BY

G. H. COLT, M.A., M.B., F.R.C.S.,
SURGEON TO THE ROYAL INFIRMARY, ABERDEEN; LECTURER ON CLINICAL SURGERY IN THE UNIVERSITY OF ABERDEEN.

It is possible to prophesy with a considerable degree of accuracy the extent of the endovenitis which follows the injection of a solution of sodium salicylate into a varicose vein. Solutions of this salt when so injected almost invariably produce pain of varying degrees of severity, depending on their concentration. The pain is not felt immediately unless the solution is escaping extravenously. Immediate pain limited to the site of the injection and continuing some time constitutes an important danger signal. It is coincident with the escape of the first drop of solution, and is fortunately becoming more and more rare with improvements in technique and with practice. It is to the secondary pain that attention should be drawn—namely, the delayed pain. The onset is variable within small limits, beginning about twenty seconds after the first few drops of solution enter the vein, rising to a maximum in about sixty seconds, and disappearing, usually completely, in two or three minutes. Its course follows the veins in whichever direction the flow occurs, but, as it spreads and becomes more intense, the counter-irritation in one part so distracts the patient's attention that the exact course

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diate result of venesection on the blood pressure is often very slight, and quite out of proportion to the alleviation of suffering; but during the following two or three days progressive fall may be observed. After this it may remain steady at its new level, or may rise again to its former height, yet the urgent symptoms do not return for many weeks.

Eliminative Treatment.

This is essentially a line of attack on the sallow, toxic type. For twelve consecutive days the patient is given 1/10 grain of pilocarpine hypodermically, followed by a hot wet pack, which is again followed by massage. Twice weekly during the course colon lavage is carried out. The diet during this time should consist of fresh fruit, vegetables, fish, brown bread, and butter. Before meals two tumblerfuls of Vichy water are to be taken. The beneficial effect on the patient's appearance, symptoms, and signs is very evident. The course may be repeated every two months, and can be carried out, if necessary, at home. Annual treatment at Harrogate is peculiarly suitable for this class of patient.

You will observe, then, that no hard-and-fast rule can be set for the treatment of hyperpiesia, but each case must be considered in relation to type, symptoms, and physical signs. Given such discrimination, we can undoubtedly bring great relief to our patients, and, I believe, prolong life for the majority.

PROGNOSIS.

Finally, the difficult problem of prognosis. You will agree that one great lesson learned in general practice is, particularly in cases of hyperpiesia, to give a cheerful outlook. Seven years ago I saw a lady with a blood pressure of 220/150, retinal and small cerebral haemorrhage, dyspnoea, obesity, and oedema of the ankles. Both types of haemorrhage were repeated within a month. It was thought unlikely that she would live two years, yet she is still highly active, never suffers from headache, and presents a systolic pressure of 220 mm. or over.

As a general rule, a high diastolic pressure renders the prognosis more gloomy, as do also clear signs of cardiac or arterial disease. The menopausal type presents the most hopeful form, the lean patient the least favourable, on account of the earlier onset and rapid arterial degeneration. It is true, also, that the occurrence of retinal or cerebral lesions more often than not heralds the approach of a fatal termination.

Patients over 60 years of age survive in the most astounding manner in spite of the presence of some, or all, of the signs usually indicating a bad prognosis. The outstanding example in my practice was that of a man of 70, known to have had a high blood pressure for at least thirty years. On three occasions he developed auricular fibrillation, which was overcome by quinidine, and once he developed diarrhoea, incontinence of urine, pyrexia, petechial haemorrhages, and a streptococcus was recovered from his blood. And yet he lives!

The anginal pains to which I have referred are not of the same gloomy significance when a high blood pressure is present as when it is absent. They disappear with reduction of hyperpiesis.

In all cases we should, of course, warn the relatives of the possibility of cardiac failure, coronary thrombosis, fatal angina, and cerebral haemorrhage. The patient, on the other hand, should be encouraged, as far as is consistent with ensuring his attention to our therapeutic efforts.

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BLINDNESS IN OLD AGE.*

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J. JAMESON EVANS, M.D., C.M., F.R.C.S.,

HONORARY OPHTHALMIC SURGEON, ROYAL INSTITUTE FOR THE BLIND, BIRMINGHAM; HONORARY SURGEON, BIRMINGHAM AND MIDLAND EYE HOSPITAL.

UNDER the provisions of the Blind Persons Act of 1920 it was enacted that "Every blind person who has attained the age of fifty shall be entitled to receive and to continue to receive such pension as, under the Old Age Pensions Acts, 1908 to 1919, he would be entitled to receive if he had attained the age of seventy," and the provisions of those Acts, including the provisions as to expenses, shall apply in all respects to such person as if for the first statutory condition there were substituted a condition that the person must have attained the age of fifty, and be so blind as to be unable to perform any work for which eyesight is essential, and as if for reference to "seventy" and "fifty" there were respectively substituted references to "fifty" and "thirty."

The Act further states that "it shall be the duty of every county and every county borough . . . to make arrangements to the satisfaction of the Minister of Health for promoting the welfare of blind persons ordinarily resident within their area, and such council may for this purpose provide and maintain or contribute towards the provision and maintenance of workshops, hostels, houses or other places for the reception of blind persons. . . . The expenses incurred by a council under this section shall be defrayed . . . out of the county or borough fund or rate."

It will be observed that the Act contains no specific arrangement for the certification of blind persons. Possibly those who drafted the Act considered that an applicant for a blind pension was in as good a position to provide a certificate of blindness as the old age pensioner was in providing a birth certificate. Possibly the "approved voluntary agencies" which administer the funds provided for the benefit of the blind might have claimed a grant for the purpose of certification from the Ministry of Health on the grounds of "necessity for securing the registration of all blind persons" (Rule 32, Ministry of Health Regulations and Rules for the Welfare of the Blind, August 7th, 1919).

As far as I know, however, this has not been done, and the local authorities have found it necessary, in the interest of the ratepayer, to get applicants for blind pensions or grants examined and authoritatively certified before the pension or grant is allowed. The Ministry of Health is very exacting with regard to the certification of trainees, and demands a medical certificate giving the visual acuity in each eye, the nature and extent of the visual defects present, and a definite opinion, formed after due consideration of all the visual conditions, that the person is too blind to perform work for which eyesight is essential. The local authority in Birmingham only requires a statement that the applicant is or is not blind within the meaning of the Blind Persons Act. That there is need for caution and discrimination in the administration of this Act is shown by the fact that a sum of £10,470 was distributed in weekly and special grants by the voluntary agency in Birmingham last year. The number of pensioners is rapidly increasing. In Birmingham in 1919 the number of adult blind living in their own homes was 425, whereas this year they number 1,005. When it is remembered that since 1928 every blind person may have his income made up to £1 a week, it is obvious that the expense to the community will be very considerable, and I think that the certification of blind pensioners should be no less detailed and comprehensive than that demanded by the Ministry of Health in the case of trainees. Since 1928 the number of applicants has more than doubled as compared with the years 1924–27.

The purpose of this paper, however, is not in the main to criticize the Blind Persons Act and its administration, but to analyse the causes of blindness in 700 old people as certified by me for the local voluntary agency in Birmingham during the last four and a half years. I have classified them into eighteen groups, and record them as follows in order of frequency.

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* Read in the Section of Ophthalmology at the Annual Meeting of the British Medical Association, Manchester, 1929.

700 Consecutive Cases Certified as "Blind Persons."

	No. of Cases.
Cataract	205
Atrophy of optic nerves	78
Glaucoma	75
Iridocyclitis and keratitis	54
Corneal opacities	45
Retinitis pigmentosa	43
Choroido-retinal atrophy	42
Congenital defects	33
Detachment of retina	27
Myopia	20
Phthisis bulbi	17
Choroido-retinal vascular disease	14
Diabetes	12
Ophthalmia neonatorum	9
Sympathetic ophthalmia	9
Trachoma	9
Buphthalmos	5
Injury (double)—two gunshot and one explosion ...	3

Cataract.—We are not surprised to find cataract at the top of the list. More than a sixth of the number were secondary, and these should be included under some inflammatory or degenerative disease. Of the ordinary senile cataracts over 37 per cent. were certified as operable, but so far as I know this in no way affects the granting of the pension. Neither do I know what may happen if such a patient gets his cataract removed and regains sufficient vision to enable him to do work for which eyesight is essential.

Atrophy of the optic nerves, coming second in the list, is unexpectedly high; 13 per cent. of these were of specific origin, and 10 per cent. were due to cerebral disease; the others were of unknown origin.

Glaucoma is a close third. Most of these appear to have been primary, only ten being recorded as secondary. About 10 per cent. of the former had been trephined.

Keratitis and iridocyclitis were mostly of specific origin (50 per cent.). In view of the fact that a number of the cases of atrophy of the optic nerves and choroid could also be ascribed to the same cause, it is obvious that syphilis constitutes the chief venereal factor in the causation of blindness in old age. It is to be hoped that modern preventive and curative treatment will do much towards reducing this high proportion of blindness from syphilis.

Corneal opacities form a rather ill-defined group. Most of them were of unknown origin. Some were associated with nystagmus, and were probably due to ophthalmia neonatorum. Some appear to be cases of interstitial keratitis, and a good many were associated with cataract.

Retinitis pigmentosa, amounting to over 6 per cent. of the cases, is a disconcerting item. Those of us who act as ophthalmic surgeons to blind institutions may have been under the fond impression that most of these cases were institutional, and that their marriages were thereby restrained. On reflection, however, it must be obvious to us that many contract marriage in ignorance of their ocular trouble. Night blindness is frequently insignificant during adolescence, or if noticeable it is tolerated with marked patience or indifference. There are others who refuse to be advised on a matter that they regard as purely personal, and have no wish to count the cost to their progeny or the State.

Choroido-retinal Atrophy.—I have had no means of establishing the causative agent in these cases. Probably the majority were syphilitic. A few also showed nystagmus and suggested infantile disease.

Congenital Defects.—About 50 per cent. of these were cases of congenital cataract, many also showed nystagmus, and in a few the lenses were dislocated.

Detachment of the retina in 27 cases is not exceptional, in my opinion. Nine showed evidence of cataract. One case only could be ascribed to high myopia. Of course, some of the cases with complicated cataracts may have been primarily high myopes.

Myopia (20 cases) was recorded as a cause of blindness, chiefly owing to choroido-retinal degeneration and secondary cataract. Few of these are noted as "high," but none had detachment of the retina.

Phthisis Bulbi.—Origin unknown in most cases. Some may have been due to ophthalmia neonatorum. Some were post-operative.

Vascular Disease of the Choroid and Retina.—Of these 14 cases, 11 were due to macular disease—senile macular degeneration, retinitis circinata, central exudative retinitis—due primarily, I think, to disease of the choroidal vessels. The three cases due to retinal vascular disease were two of venous thrombosis and one of double arterial thrombosis or embolism. It would appear, therefore, that retinal vascular degeneration does not often lead to blindness, or that those afflicted by it do not live long enough to be able to claim a blind pension.

Exception might be taken to this statement in the case of *diabetics*, the cause of the blindness in their case being equally divided between haemorrhagic retinitis and cataract (6 cases each).

Ophthalmia neonatorum forms rather a small class when one considers the frequency of the disease. Possibly the number should be slightly increased from the cases classified under congenital defects and corneal opacities.

Sympathetic ophthalmia claims 9 cases, one only of which was post-operative, the rest being the result of injuries. These 8 cases may be regarded as the toll of industrialism. The number is higher than it ought to be, but it is impossible to apportion the blame between the patient or his friends, surgical judgement, and inefficient therapeusis. I think the future holds out a distinct hope that this disease may be practically eliminated, if the public can be made to recognize the gravity of ocular injuries and be taught to seek advice promptly.

Double injury (gunshot wounds and explosion) accounted for 3 cases.

Trachoma was recorded in 9 cases, and in 5 cases buphthalmos of unknown origin was the cause of blindness. Some at any rate were probably due to congenital defects.

I apologize for the "scrappiness" of this paper, based on such a small number of cases, but I hope it may stimulate others to record the results of more extended and exact observations as further material becomes available. I also hope that it may have the effect of drawing the attention of members of the profession, as well as that of public authorities, to some unsatisfactory features in the certification of the blind, and to the desirability of some agreement among the certifying surgeons with regard to procedure in the issuing of certificates.

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